Please amend Claims 1, 2, 3, and 4 as follows:

1. (Once Amended) A method of determining machining instructions for milling machinery comprising at least a three-axis computer numerical control milling machine during machining of a work piece to machine precise concave and convex surfaces within a metal block, said method comprising, in combination, using a machine having a spinning form cutter and a rotary table, the surfaces of the work piece being defined by a plurality of programmed instructions for said computer numerical control milling machine obtained by trigonometric analysis of required curvatures of the surfaces and movements of said spinning form cutter and said rotary table, said movement of said spinning form cutter being in a convex path and said movement of said rotary table being to rotate simultaneously from a plus rotation angle to a minus rotation angle and, alternatively, from a minus rotation angle to a plus rotation angle, said programmed instructions determined by said trigonometric analysis of a diagram of required concave and convex surfaces of resulting root section of a turbine blade and movements of said spinning form cutter and rotary table, said root section having at least a first hook as a first holding hook.

2. (Once Amended) The method of Claim 1 wherein said trigonometric analysis of the required curvatures of the surfaces comprises analysis of a diagram of a graphical construction of the required curvatures of the surfaces and movements of said spinning cutter and said rotary table relative to the application of said spinning form cutter [the cutting tool] to the required curvatures of [the] said root section of [the] said turbine blade, said graphical construction consisting essentially of a trigonometric analysis, said root section comprising at least one holding hook [holding key].

3. (Once Amended) The method of Claim 1 wherein said trigonometric analysis of the required curvatures of the surfaces and movements of said spinning cutter and said rotary table determines the path of said spinning form cutter as a curved convex radius of E plus R wherein E is the distance [form] from center of rotary table to first holding hook and R is the radius on the first holding hook [holding key].

4. (Once Amended) The method of Claim 1 wherein said trigonometric analysis of the required curvatures of the surfaces and movements of said spinning cutter and said rotary table determines the path of said spinning form cutter as a curved convex radius of E plus R wherein E + R of the convex radius is determined by points L, C, and A, L being the minimum distance P and distance M determined by angle +Q°, the angle of rotation to the left, C being the minimum distance E determined by the angle 0°; A being the minimum distance F and distance Y determined by angle -Q°, the angle of rotation to the right; E being the distance from center of rotary table to first holding hook, and R the radius on the first holding hook.

REMARKS

The specification has been amended on page 1, line 24 to delete the term "a" and insert therefore the term "said" to refer back to turbine blades earlier in the paragraph.

The specification has been amended on page 2, line 43, to insert the phrase "the root section of" after term "holds" to correct the statement to be consistent with FIGS 1 and 2 wherein the root section of the turbine blades is shown as held by the rotary table.

Applicant regrets the incorrect designation on page 2, line 43, of the turbine blades as being held by the rotating table whereas the object held is the root section of the turbine blades,